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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/673,428	12/05/2000	Paul Lippens	CASM116373	8709

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EXAMINER
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SIMONE, CATHERINE A

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 06/18/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/673,428

Applicant(s)

LIPPENS ET AL.

Examiner

Catherine Simone

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on March 25, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 19-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-5, 8, 10, 11, 14, 16, 18 and 33** are rejected under 35 U.S.C. 102(b) as being anticipated by Namikawa et al. (4,849,618).

Namikawa et al. discloses a security element comprising a magnetic layer (Fig. 1, #5 and Fig. 11, M'; also see col. 3, lines 45-61) and an embossed layer (Fig. 1, #3' and Fig. 11, M'), the embossed layer having an embossed pattern of a particular shape producing an optical diffraction effect, characterized in that the magnetic layer is a soft-magnetic layer and wherein at least part of the soft-magnetic layer has the shape of the embossed pattern of the embossed layer (see col. 4, lines 26-30) whereby the embossed layer affects the magnetic properties of the soft-magnetic layer and the effects are detectable externally of the security element. Regarding **claim 2**, the security element further comprises at least a metal layer with a high specular reflectance (see col. 3, lines 44-48). Regarding **claims 3 and 4**, the metal layer with a high specular reflectance is aluminum (see col. 3, lines 44-48). Regarding **claim 5**, note that the security element further comprises an adhesive layer (see col. 4, lines 38-40). Regarding **claim 8**, the particular shape of the embossed pattern inherently produces a hologram (see col. 9, lines 23-50). Regarding **claim 10**, the soft magnetic layer comprises an alloy containing cobalt, iron, silicon and boron (see col.

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8, line 68). Regarding **claim 11**, the alloy further comprises Ni (see col. 8, line 66). Regarding **claim 14**, the security element has single soft-magnetic layer (Fig. 1, #5). Regarding **claim 16**, the soft-magnetic layer is a non-work hardened layer (see col. 3, lines 45-61). Regarding **claim 18**, note the effect on the magnetic properties of the soft-magnetic layer is at least a change in coercive force of 10% or a change in relative permeability of at least 10% (see col. 3, lines 3, lines 45-55). Regarding **claim 33**, the thickness of the soft-magnetic layer is in the range of 150-700 nm (see col. 3, lines 50-51).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 6 and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Namikawa et al. (4,849,618) in view of Chamberlain (5,762,377).

Namikawa et al. discloses a security element comprising a magnetic layer (Fig. 1, #5 and Fig. 11, M') and an embossed layer (Fig. 1, #3' and Fig. 11, M'), the embossed layer having an embossed pattern of a particular shape producing an optical diffraction effect, characterized in that the magnetic layer is a soft-magnetic layer and wherein at least part of the soft-magnetic layer has the shape of the embossed pattern of the embossed layer (see col. 4, lines 26-30) whereby the embossed layer affects the magnetic properties of the soft-magnetic layer and the effects are detectable externally of the security element. However, Namikawa et al. fails to

disclose the embossed layer comprising an a,b-ethylenically unsaturated carboxylic acid-based resin. Chamberlain teaches it is old and well-known in the analogous art an adhesive layer being an a,b-ethylenically unsaturated carboxylic acid-based resin (see col. 15, lines 60-65) for the purpose of producing a security element with increased protection against counterfeiting.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have the adhesive layer in Namikawa et al. to comprise an a,b-ethylenically unsaturated carboxylic acid-based resin as suggested by Chamberlain in order to produce a security element with increased protection against counterfeiting.

5. **Claims 9, 12, 13, 15 and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Namikawa et al. (4,849,618) in view of Pettigrew et al. (4,960,651).

Namikawa et al. discloses a security element comprising a magnetic layer (Fig. 1, #5 and Fig. 11, M') and an embossed layer (Fig. 1, #3' and Fig. 11, M'), the embossed layer having an embossed pattern of a particular shape producing an optical diffraction effect, characterized in that the magnetic layer is a soft-magnetic layer and wherein at least part of the soft-magnetic layer has the shape of the embossed pattern of the embossed layer (see col. 4, lines 26-30) whereby the embossed layer affects the magnetic properties of the soft-magnetic layer and the effects are detectable externally of the security element. However, Namikawa et al. fails to disclose the soft-magnetic layer comprising an alloy containing cobalt and niobium, together with a glass-forming element and an alloy having a composition Co 35-70, Fe 2-7, Ni 10-35, Mo 0-2, Si 12-20, B 6-12 and the soft-magnetic layer having a coercive force in the range 3 A/m to 500 A/m and being a sputtered layer. Pettigrew et al. teaches it is old and well-known in the analogous art to have a soft-magnetic layer comprising an alloy containing cobalt and niobium,

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together with a glass-forming element (see col. 5, lines 27-28) and an alloy having a composition Co 35-70, Fe 2-7, Ni 10-35, Mo 0-2, Si 12-20, B 6-12 (see col. 6, lines 9-11) and a soft-magnetic layer having a coercive force in the range 3 A/m to 500 A/m (see col. 7, line 25-30) and being a sputtered layer (see col. 5, lines 1-7) for the purpose of producing a security element with low coercivity and high permeability.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have the soft-magnetic layer in Namikawa et al. comprise an alloy containing cobalt and niobium, together with a glass-forming element and an alloy having a composition Co 35-70, Fe 2-7, Ni 10-35, Mo 0-2, Si 12-20, B 6-12 and to have coercive force in the range 3 A/m to 500 A/m and be a sputtered layer as suggested by Pettigrew et al. in order to produce a security element with low coercivity and high permeability.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-18 and 33 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Simone whose telephone number is (703) 605-4297. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (703) 308-4251. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Catherine Simone  
Examiner  
Art Unit 1772

June 6, 2003



HAROLD PYON  
SUPERVISORY PATENT EXAMINER

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